

REMARKS/ARGUMENTS

The above amendments and following remarks are made in response to the Non-Final Office action of December 29, 2008. Claims 1-9 are pending in the present Application. No claims have been cancelled, claims 1, 4 and 7 have been amended and claims 10 and 11 are new, leaving claims 1-11 for consideration upon entry of the present Amendment.

Claims 1 and 4 have been amended to recite an incident light generator comprising a plurality of reflecting plates, supported at least by Fig. 3 and the Specification on page 8, line 18. Claims 10 and 11 have been added to further define the present invention. The claims have been further amended/added for clarity and consistency and proper antecedent basis, supported at least by the specification and Fig. 3. The amendments have been made for purposes of clarifying the claimed invention.

Applicants respectfully submit that in light of the above amendments and the following remarks, the claims as presented are in condition for allowance.

Claim Rejections Under 35 U.S.C. § 103(a)

For an obviousness rejection to be proper, the Examiner is expected to meet the burden of establishing why the differences between the prior art and that claimed would have been obvious. (MPEP 2141(III)) "A patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art." *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 (2007). To find obviousness, the Examiner must "identify a reason that would have prompted a person of ordinary skill in the art in the relevant field to combine the elements in the way the claimed new invention does." *Id.*

Claims 1, 3-5 and 8

Claims 1, 3-5 and 8 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Bohn (U.S. Patent No. 6,618,038, hereinafter "Bohn") in view of Kinrot (U.S. Patent No. 6,424,407, hereinafter "Kinrot"). The Examiner states that Bohn discloses an optical image detector comprising a light source and an incident light generator configured to receive light from a light source and to generate at least two groups of incident lights, which the Examiner states is disclosed primarily in col. 6, lines 18-34, col. 8, lines 1-32 and Fig. 3 of Bohn.

(Office Action dated December 29, 2008, p. 2) The Examiner admits that Bohn does not disclose *a single light source*, which the Examiner further states is disclosed by Kinrot in col. 3, line 66 to col. 4, line 22 and that it would have been obvious to modify Bohn in view of Kinrot to provide the claimed optical image detector. (Office Action dated December 29, 2008, p. 3) The Applicants respectfully traverse.

As noted in the Applicants' prior response, Bohn is directed towards a pointing device having a rotational sensing mechanism. The pointing device 100 is placed on a surface 142 of an object 140 having a texture 144, **thus the pointing device 100 is distinct from and does not include the surface 142 of the object 140.** (Bohn, col. 5, lines 14-15) The pointing device 100 includes first and second navigators 126 and 128, respectfully. Each of the navigators 126 and 128 includes an LED light source 156 which directs light along a light incident path 164 towards the surface 142. Light is then reflected from the surface along a reflected light path 166 and a specular light path 167. The light reflected along the reflected path 166 passes through an aperture 150 in a bottom 113 of the pointing device 100. The light on the reflected path 166 passes through a lens 154 and contacts surface photodiodes 159 in a first photosensor device 158, wherein it is converted into data and analyzed by a processor to determine movement of the pointing device 100. (See Abstract, col. 1, lines 15-21, col. 2, lines 33-36, col. 3, lines 30-32 and 58, col. 6, lines 21-24, col. 8, lines 1-20 and col. 13, lines 18-20 and FIGS. 1-5).

Meanwhile, the light on the specular light path 167 passes through the aperture 150 and into the chassis of the pointing device until it contacts a lens 108-110 formed along the exterior of the pointing device 100. The lens 108-110 is then illuminated for a user to see.

In one embodiment, the second navigator 128 includes similar components as the first navigator 126 described above. (See FIGS. 2-4). In an alternative embodiment, the dual photosensor structure is replaced by a series of reflectors 350 and 352 to direct reflected light along paths 330 and 332 to a single photosensor array 310. (See FIG. 5).

Bohn does not disclose **an incident light generator comprising a plurality of reflecting plates configured to receive a light from the single light source and to generate at least two groups of incident lights having different incident angles with respect to the surface of the object** as claimed in amended independent claim 1, and similarly claimed in amended independent claim 4, of the present invention.

The Examiner first points to col. 6, lines 18-34 of Bohn to teach the claimed incident light generator. Bohn states, "The incident light path 164 may extend from the LED 156, through the first aperture 150 and to the surface 142 of the object 140." (Bohn, col. 6, lines 21-23) Bohn also states in the same paragraph "The reflected light path 166 may extend from the surface 142 through the first aperture 150, through the lens 154 and to the surface 159 of the photosensor array 158." (Bohn, col. 6, lines 28-32) The light paths are further described in Fig. 3 of Bohn. An aperture, such as first aperture 150, is distinct from and does not suggest an element, let alone a reflecting plate. Also, the pointing device 100 is distinct from and does not include the surface 142 of the object 140. Thus the above or any other disclosure in Bohn does not disclose or suggest a reflecting plate configured to receive a light from a single light source. Therefore Bohn, including the paragraph referenced by the Examiner in col. 6, does not disclose or suggest an element, let alone a reflecting plate, between the LED light source 156 and the surface of the object 142.

The Examiner also points to col. 8, lines 1-32 of the specification of Bohn to teach the claimed incident light generator. As described above, there is no element between the LED light source 156 and the surface 142, let alone an element comprising a plurality of reflecting plates, which could receive the light from the LED 156 and generate at least two groups of incident lights having different incident angles with respect to the surface of the object. Instead, light from the LED 156 is directly output to the surface 142. Therefore, Bohn does not disclose or suggest an incident light generator comprising a plurality of reflecting plates configured to receive a light from the single light source and to generate at least two groups of incident lights having different incident angles with respect to the surface of the object.

The Examiner also states that Bohn discloses "a curved reflector which separates light." (Office Action dated December 29, 2008, p. 3) Bohn discloses a first reflector 350 and a second reflector 352. (Bohn, Fig. 5) Bohn does not disclose or suggest that either the first reflector 350 or the second reflector 352 is curved, and thus a curved reflector separating light is not disclosed or suggested by Bohn.

Kinrot does not remedy the deficiencies of Bohn. Kinrot discloses a method for determining the relative motion of a surface with respect to a measurement device. (Kinrot, Abstract) Kinrot discloses a translation detector comprising a laser diode 32 emitting laser light,

which is **collimated** by a lens 34. (Kinrot, Fig. 3A and col. 38, lines 45-46) Kinrot does not disclose or suggest an incident light generator comprising a plurality of reflecting plates. Further, by teaching collimated light, Kinrot teaches away from an optical image detector comprising an incident light generator comprising a plurality of reflecting plates configured to receive a light from the single light source and to generate at least two groups of incident lights having different incident angles with respect to the surface of the object. Therefore Kinrot does not remedy the deficiencies of Bohn and independent claims 1 and 4 are patentable over Bohn and Kinrot, alone or in combination.

Thus, claims 1 and 4 are believed to be patentably distinct and not anticipated by Bohn in view of Kinrot. Claim 3 depends directly from claim 1, and thus includes all of the limitations of claim 1. Claims 5 and 8 depend directly from claim 4, and thus include all of the limitations of claim 4. It is thus believed that the dependent claims are allowable for at least the reasons given for independent claims 1 and 4, which are believed to be allowable.

Accordingly, Applicants respectfully request reconsideration, withdrawal of the rejections under 35 U.S.C. § 103, and allowance of the instant claims, including claims 1, 3-5 and 8.

Claims 2, 6, 7 and 9

Claims 2, 6, 7 and 9 stand rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Bohn in view of Kinrot and further in view of He (U.S. Patent No. 6,540,356, hereinafter "He"). The Examiner states that Bohn in combination with Kinrot discloses all of the elements of the abovementioned claims except, *a third reflecting plate reflecting the lights of the light source to generate a third group of incident lights having a third incident angle greater than the second incident angle with respect to the surface of the object*, which the Examiner further states is disclosed primarily in col. 3, lines 5-30 and col. 6, lines 12-16 of He. Applicants respectfully traverse.

The Examiner states that the Remarks made in the Amendment filed November 7, 2008 "have been fully considered and are persuasive." (Office Action dated December 29, 2008, p. 10) Accordingly, the Applicants maintain that He is non-analogous art and that He does not disclose, teach or suggest a **single** light source, and **an incident light generator**, let alone **an**

incident light generator comprising a plurality of reflecting plates configured to receive a light from the single light source and to generate at least two groups of incident lights having different incident angles with respect to the surface of the object as claimed in amended independent claim 1, and similarly claimed in amended independent claims 4 and 9, of the present invention.

As mentioned above for independent claims 1 and 4, Bohn in view of Kinrot does not disclose or suggest **an incident light generator comprising a plurality of reflecting plates configured to receive a light from the single light source and to generate at least two groups of incident lights having different incident angles with respect to the surface of the object** as claimed in amended independent claim 1, and similarly claimed in amended independent claim 4, of the present invention.

He is directed towards an instrument and a method for measuring aberration of human eyes. The instrument includes and LED driving circuit 1, an LED array 2, a first lens 3, a reflector 4, a second reflector 8 and a third reflector 11. (See Abstract, FIG. 1 and col. 4, line 65 through col. 5, line 11).

Applicants first traverse the rejection on the grounds that Bohn and He are non-analogous art. For the purposes of evaluating obviousness of claimed subject matter, the particular references relied upon must constitute "analogous art". *In re Clay*, 966 F.2d 656, 659, 23 U.S.P.Q.2d 1058, 1060-61 (Fed. Cir. 1992). The art must be from the same field of endeavor, or be reasonably pertinent to the particular problem with which the inventor is involved. *Id.* However, He is directed to a completely different field of endeavor than the pointing device of Bohn, namely, He is directed towards detecting aberrations in human eyes. One of ordinary skill in the art would not look to the field of human eye aberration detection to modify the teachings of Bohn.

Secondly, He fails to cure the deficiencies of Bohn in view of Kinrot with respect to the independent claims. He does not disclose, teach or suggest **an incident light generator comprising a plurality of reflecting plates configured to receive a light from the single light source and to generate at least two groups of incident lights having different incident angles with respect to the surface of the object** as claimed in amended independent claim 1, and similarly claimed in amended independent claims 4 and 9, of the present invention.

Thus, Applicants submit that none of Bohn, Kinrot and He, alone or in combination, render obvious the subject matter of independent claims 1, 4 and 9. Claim 2 depends from claim 1, and thus includes the allowable elements of claim 1. Claims 6 and 7 depend from claim 4, and thus include the allowable elements of claim 4. It is thus believed that the dependent claims are patentable over the cited references for at least the reasons given above for independent claims 1 and 4.

Accordingly, it is respectfully submitted that the claimed invention is allowable over the cited references. The Examiner's reconsideration, withdrawal of the rejections under 35 U.S.C. § 103, and allowance of the instant claims, including claims 2, 6, 7 and 9, and their subsequent allowance, is respectfully requested.

Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that all of the claims 1-11 now pending in the application are in condition for allowance. Early and favorable reconsideration is respectfully requested.

Applicants hereby petition for any necessary extension of time required under 37 C.F.R. 1.136(a) or 1.136(b) which may be required for entry and consideration of the present Reply.

If there are any charges due with respect to this response, please charge them to Deposit Account No. 06-1130 maintained by Applicant's Attorneys.

Respectfully submitted,

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